

Money

ECO 420 Lecture 2.1.

Petar Stankov

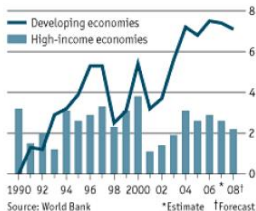
`petar.stankov@gmail.com`

20 Jan. 2010

A follow-up on a question from the last lecture

Not an obvious disaster

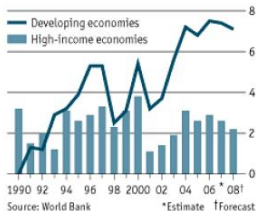
GDP, % increase on previous year



A follow-up on a question from the last lecture

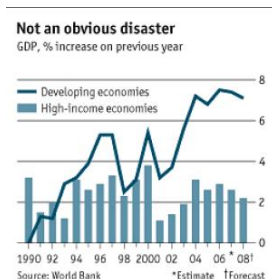
Not an obvious disaster

GDP, % increase on previous year



Why?

A follow-up on a question from the last lecture



Why?

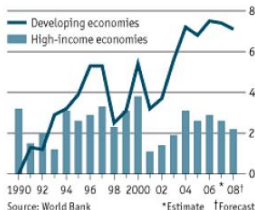
① Fertility rate has fallen dramatically since 1970:

- East Asia and the Pacific: from 5.4 to 2.1
- South Asia: from 6.0 to 3.1
- The World: from 4.8 to 2.6

A follow-up on a question from the last lecture

Not an obvious disaster

GDP, % increase on previous year



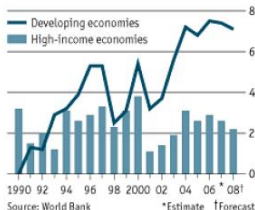
Why?

- 1 Fertility rate has fallen dramatically since 1970:
 - East Asia and the Pacific: from 5.4 to 2.1
 - South Asia: from 6.0 to 3.1
 - The World: from 4.8 to 2.6
- 2 Half of mankind (in 40 countries) lives in economies growing at 7%/yr. or more

A follow-up on a question from the last lecture

Not an obvious disaster

GDP, % increase on previous year



Why?

- 1 Fertility rate has fallen dramatically since 1970:
 - East Asia and the Pacific: from 5.4 to 2.1
 - South Asia: from 6.0 to 3.1
 - The World: from 4.8 to 2.6
- 2 Half of mankind (in 40 countries) lives in economies growing at 7%/yr. or more
- 3 Decline in the number of wars and rise in resolved conflicts

Outline

- 1 What is Money?
- 2 Functions of Money
- 3 Measuring Money
- 4 Payment Systems and Their Evolution

What is Money?

MMmmoney:)

What is Money?

MMmmoney:)

Definition: Money. The Economists Way.

What is Money?

MMmmoney:)

Definition: Money. The Economists Way.

Money is anything that is generally accepted in payment for goods or services or in the repayment of debts.

Then, what is the thing in your left pocket?

What is Money?

MMmmoney:)

Definition: Money. The Economists Way.

Money is anything that is generally accepted in payment for goods or services or in the repayment of debts.

Then, what is the thing in your left pocket? **Currency** is the bills and coins of a country.

Is money a **wealth**?

What is Money?

MMmmoney:)

Definition: Money. The Economists Way.

Money is anything that is generally accepted in payment for goods or services or in the repayment of debts.

Then, what is the thing in your left pocket? **Currency** is the bills and coins of a country.

Is money a **wealth**?

Definition: Personal wealth

Wealth is the *stock* of money but also other assets such as bonds, common stock, art, land, furniture, cars, and houses, taken together.

Definition: Income

What is Money?

MMmmoney:)

Definition: Money. The Economists Way.

Money is anything that is generally accepted in payment for goods or services or in the repayment of debts.

Then, what is the thing in your left pocket? **Currency** is the bills and coins of a country.

Is money a **wealth**?

Definition: Personal wealth

Wealth is the *stock* of money but also other assets such as bonds, common stock, art, land, furniture, cars, and houses, taken together.

Definition: Income

Income is the *flow* of money, interest rate and maturity payments per unit of time.

What are the functions of money?

Functions of money:

What are the functions of money?

Functions of money:

- **A medium of exchange:** it is used to pay for goods and services
 - imagine a barter economy
 - facilitating transactions (reducing transaction costs)
 - encouraging specialization

What are the functions of money?

Functions of money:

- **A medium of exchange:** it is used to pay for goods and services
 - imagine a barter economy
 - facilitating transactions (reducing transaction costs)
 - encouraging specialization
- **A unit of account:** to measure the value of the goods and services
 - imagine a barter economy, 10 goods only
 - price normalization

What are the functions of money?

Functions of money:

- **A medium of exchange:** it is used to pay for goods and services
 - imagine a barter economy
 - facilitating transactions (reducing transaction costs)
 - encouraging specialization
- **A unit of account:** to measure the value of the goods and services
 - imagine a barter economy, 10 goods only
 - price normalization
- **A store of value:** it has most of its purchasing power tomorrow too
 - any asset is a store of value. Why people choose money?

What are the functions of money?

Functions of money:

- **A medium of exchange:** it is used to pay for goods and services
 - imagine a barter economy
 - facilitating transactions (reducing transaction costs)
 - encouraging specialization
- **A unit of account:** to measure the value of the goods and services
 - imagine a barter economy, 10 goods only
 - price normalization
- **A store of value:** it has most of its purchasing power tomorrow too
 - any asset is a store of value. Why people choose money?
 - liquidity

What is liquidity?

Definition: Liquidity

What is liquidity?

Definition: Liquidity

Liquidity is the relative ease and speed with which an asset can be converted into a medium of exchange

Advantages and disadvantages of a higher liquidity:

Advantages

- lower costs of transactions
- ...

Disadvantages

- no interest
- inflation eats it up
(hyperinflation in BG, 1997)

How do we measure money?

Why is measuring money important?

How do we measure money?

Why is measuring money important?

Measures of the money (money supply): **monetary aggregates**

Definition: Monetary Aggregates

Monetary Aggregates are the various measures of money supply used by the central banks around the world

Three main monetary aggregates:

How do we measure money?

Why is measuring money important?

Measures of the money (money supply): **monetary aggregates**

Definition: Monetary Aggregates

Monetary Aggregates are the various measures of money supply used by the central banks around the world

Three main monetary aggregates:

- M1
- M2
- M3
- MP3s

M1

What is **M1**?:

What is **M1**?: Currency and assets that can be used directly as a medium of exchange

Table 1 Measures of the Monetary Aggregates

| | Value as of December 2002 (\$billions) |
|----------------------------|---|
| M1 = Currency | 626.5 |
| + Traveler's checks | 7.7 |
| + Demand deposits | 290.7 |
| + Other checkable deposits | 281.2 |
| Total M1 | 1,206.1 |

M2 and M3

What is **M2**?:

M2 and M3

What is **M2**?: Currency and assets that are very liquid – can be easily turned into cash but are not cash themselves. M2 are the very short-term money market instruments

What is **M3**?:

M2 and M3

What is **M2**?: Currency and assets that are very liquid – can be easily turned into cash but are not cash themselves. M2 are the very short-term money market instruments

What is **M3**?: Currency and assets that are less liquid – can not be turned into cash with little cost

M2 = M1

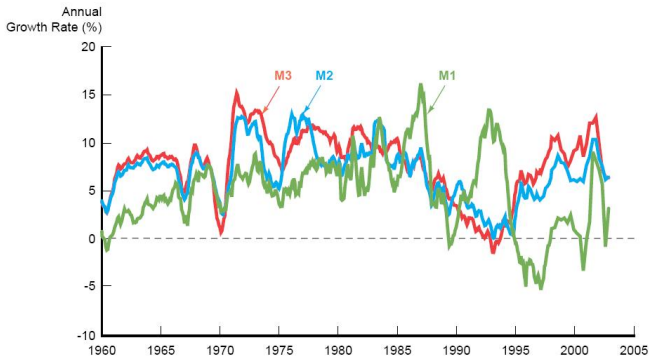
| | |
|--|---------|
| + Small-denomination time deposits and repurchase agreements | 1,332.3 |
| + Savings deposits and money market deposit accounts | 2,340.4 |
| + Money market mutual fund shares (noninstitutional) | 923.7 |
| Total M2 | 5,802.5 |

M3 = M2

| | |
|--|---------|
| + Large-denomination time deposits and repurchase agreements | 1,105.2 |
| + Money market mutual fund shares (institutional) | 767.7 |
| + Repurchase agreements | 511.7 |
| + Eurodollars | 341.1 |
| Total M3 | 8,528.2 |

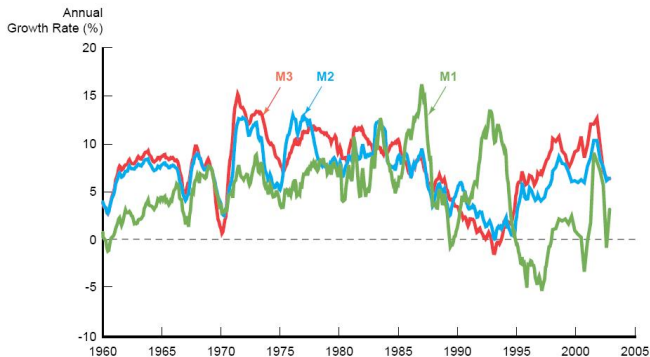
The Growth of Money Over Time

How do the monetary aggregates move over time?



The Growth of Money Over Time

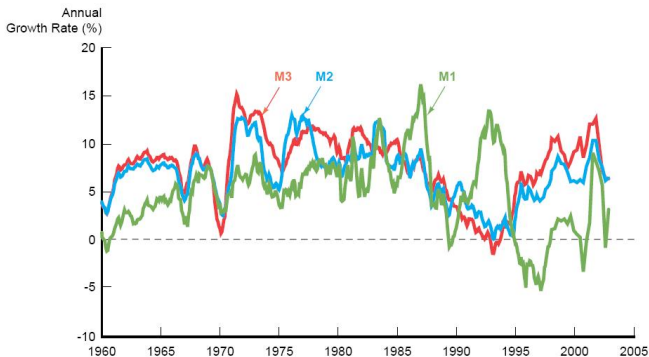
How do the monetary aggregates move over time?



- until the 1990's move pretty much together

The Growth of Money Over Time

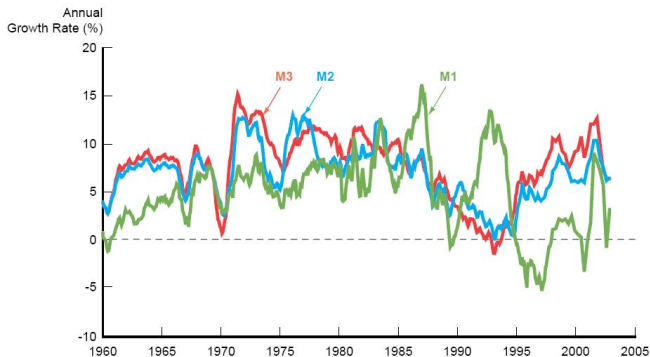
How do the monetary aggregates move over time?



- until the 1990's move pretty much together
- today, the story is more complex

The Growth of Money Over Time

How do the monetary aggregates move over time?



- until the 1990's move pretty much together
- today, the story is more complex
- money (measurement) matters. Why?

What is a payment system?

Definition: Payment system

What is a payment system?

Definition: Payment system

A **payment system** is a method of conducting transactions in the economy

Evolution of the payment system is evolution of money:

What is a payment system?

Definition: Payment system

A **payment system** is a method of conducting transactions in the economy

Evolution of the payment system is evolution of money:

- **Commodity money:** precious metals or another valuable commodity
- **Paper money:** a guarantee that the piece of paper was convertible into coins or into a quantity of precious metal
- **Fiat money:** paper money issued by the government that are generally not convertible into precious metals but everyone accepts them as a medium of exchange
- **Checks:** an instruction to the bank to pay a specified amount of fiat money to the holder of the check
- **E-money:** electronic settlement of payment needs

What is a payment system?

Definition: Payment system

A **payment system** is a method of conducting transactions in the economy

Evolution of the payment system is evolution of money:

- **Commodity money**: precious metals or another valuable commodity
- **Paper money**: a guarantee that the piece of paper was convertible into coins or into a quantity of precious metal
- **Fiat money**: paper money issued by the government that are generally not convertible into precious metals but everyone accepts them as a medium of exchange
- **Checks**: an instruction to the bank to pay a specified amount of fiat money to the holder of the check
- **E-money**: electronic settlement of payment needs

Can we think of advantages and disadvantages of each form of money?